

## Patent Abstracts of Japan

PUBLICATION NUMBER : 57149784  
 PUBLICATION DATE : 16-09-82

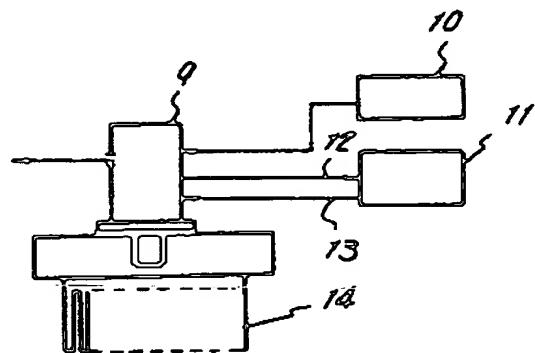
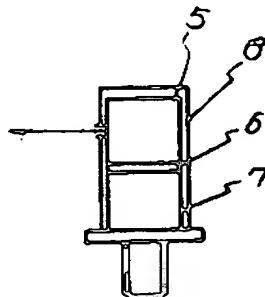
APPLICATION DATE : 11-03-81  
 APPLICATION NUMBER : 56034881

APPLICANT : NEC CORP;

INVENTOR : OIWA TADAO;

INT.CL. : H01S 3/18 // H01L 23/36

TITLE : LASER DIODE



ABSTRACT : PURPOSE: To obtain a stable luminous wave length by providing a laser diode element, temperature detection element, and electronic cooling element on the same chip.

CONSTITUTION: A laser diode element 5, temperature detection element 6, and electronic cooling element 7 are formed on the same chip and they are fixed to a holding mount 8. The laser diode 9 receives a power from a laser diode driving circuit 10 and heated by the power. However, a rise in temperature is immediately detected by the temperature detection sensor provided at immediately under the laser diode 9 to drive the element 7 located under the temperature detection sensor. In this way, the temperature at the laser diode is constantly maintained. Therefore, a luminous wave length is stably held.

COPYRIGHT: (C) JPO